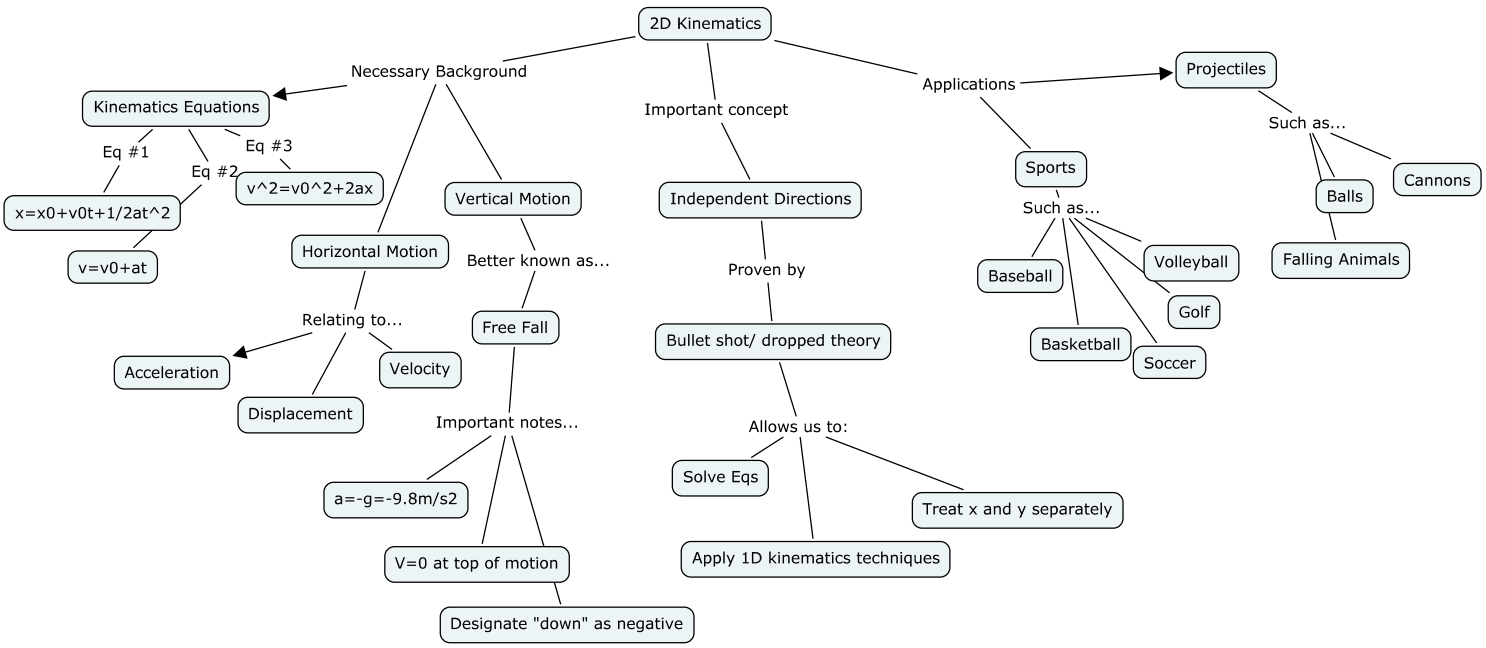
2D Kinematics
Necessary Background
Kinematics Equations
Eq #1
Eq #2
Eq #3
x=x0+v0t+1/2at^2
v=v0+at
v^2=v0^2+2ax
Horizontal Motion
Relating to...
Acceleration
Displacement
Velocity
Vertical Motion
Better known as...
Free Fall
Important notes...
a=-g=-9.8m/s2
V=0 at top of motion
Designate "down" as negative
Important concept
Independent Directions
Proven by
Bullet shot/ dropped theory
Allows us to:
Solve Eqs
Apply 1D kinematics techniques
Treat x and y separately
Applications
Sports
Such as...
Baseball
Basketball
Soccer
Golf
Volleyball
Projectiles
Such as...
Balls
Falling Animals
Cannons